

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT****ENGINEERING AND COMPLIANCE OFFICE****APPLICATION PROCESSING AND CALCULATIONS**

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De Minimus Significant Title V Permit Revision
Sections D&H
Lithographic printing Presses
Adding New Rule 1401 Compounds

Legal Owner

ID 37881

or Operator:

VERTIS, INC.
250 W PRATT ST, 18TH FLOOR
BALTIMORE, MD 21201

Equipment

Location: 3200 POMONA BLVD, POMONA, CA 91768-3232

Equipment Description:

A/N 512207

Deminimus Significant Title V Permit Revision

SECTION D

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: PRINTING, DRYING AND CONTROL SYSTEMS					
PRINTING PRESS, LITHOGRAPHIC, NO. 702, HARRIS GOSS, HEATSET A/N: 329490 <u>511059</u>	D17			VOC: (9) [RULE 1130, 10-8-1999, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009)	B27.1 <u>B59.2</u> , H23.2, K67.2
OVEN, DRYING, NO. 5, NATURAL GAS, 7 MMBTU/HR A/N: 329490 <u>511059</u>	D18	C22		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008]; NOX: 30 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10- 1996; RULE 1303(a)(1)-BACT, 12-6-2002]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	H23.5
PRINTING PRESS, LITHOGRAPHIC, NO. 907, HARRIS, HEATSET A/N: 330277 <u>511060</u>	D20	C21		VOC: (9) [RULE 1130, 10-8-1999, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009)	B27.1 <u>B59.2</u> , H23.2, K67.2
AFTERBURNER, GRACE TEC, NATURAL GAS, INTEGRATED DRYER/THERMAL OXIDIZER, 3 MMBTU/HR A/N: 330277 <u>511060</u>	C21	D20		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D29.2, E193.2, H23.5

SECTION H



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Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: PRINTING, DRYING AND CONTROL SYSTEMS					
PRINTING PRESS, LITHOGRAPHIC, NO. 906, HARRIS, HEAT SET, A/N: 281129 507128 <u>511055</u>	D1			VOC: (9) [RULE 1130, 10-8-1999, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009)	B27.1 <u>B59.2</u> , H23.2, K67.2
OVEN, NO. 1, NATURAL GAS, 3.4 MMBTU/HR TOTAL, TWO MAXON M-PAKT ULTRA EB-3 BURNERS, EACH 1.7 MMBTU/HR A/N: 281129 507128 <u>511055</u>	D2	E3 C23		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D182.3, H23.6
PRINTING PRESS, LITHOGRAPHIC, HARRIS N-954-3, HEATSET A/N: 281130 507129 <u>511056</u>	D4			VOC: (9) [RULE 1130, 10-8-1999, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009)	B27.1 <u>B59.2</u> , H23.2, K67.2
OVEN, NO. 2, NATURAL GAS, 3.4 MMBTU/HR TOTAL, TWO MAXON M-PAKT ULTRA EB-3 BURNERS, EACH 1.7 MMBTU/HR A/N: 281130 507129 <u>511056</u>	D5	E3 C23		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D182.3, H23.6
PRINTING PRESS, LITHOGRAPHIC, HARRIS N-954-3, HEATSET A/N: 483695 507127 <u>511057</u>	D6			VOC: (9) [RULE 1130, 10-8-1999, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009)	B27.1 <u>B59.2</u> , H23.2, K67.2
OVEN, NO. 2, NATURAL GAS, 3.4 MMBTU/HR TOTAL, TWO MAXON M-PAKT ULTRA EB-3 BURNERS, EACH 1.7 MMBTU/HR A/N: 483695 507127 <u>511057</u>	D7	C3 C23		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D182.3, H23.6
PRINTING PRESS, LITHOGRAPHIC, HARRIS N-954-3, HEATSET A/N: 317535 507131 <u>511058</u>	D15			VOC: (9) [RULE 1130, 10-8-1999, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009)	B27.1 <u>B59.2</u> , H23.2, K67.2



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OVEN, NO. 2, NATURAL GAS, 3.4 MMBTU/HR TOTAL, TWO MAXON M-PAKT ULTRA EB-3 BURNERS, EACH 1.7 MMBTU/HR A/N: 317535 507131 <u>511058</u>	D16	C3 C23		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D182.3, H23.6
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History

The above applications were submitted on 5-10-2010 to update Rule 1401 conditions, by removing Condition No. B27.1 for the heat set printing presses, and replacing it with Condition No. B59.2, with the following proposed wording:

B59.2 The operator shall not use the following material(s) in this device:

Materials containing toxic air contaminants identified in Rule 1401, Table I, with an effective date of June 5, 2009 or earlier, except for hydrochloric acid, naphthalene, PAHs, phosphoric acid, and xylenes.

Since Vertis is not proposing to increase usage amount of inks and other VOC-containing materials, the proposed permit condition changes will not result in any emission increases of ROG, and negligible increases of toxic air contaminants (TACs). Therefore, this project is considered a De Minimus Significant permit revision.

A review of District compliance records indicates that there are no citizen complaints, Notices to Comply, nor Notices of Violation issued to this facility during the last two years.

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Emission Calculations

The following table summarizes the weight percents of TACs contained inks used at the facility, and the total annual ink usage quantity.

<i>Vendor</i>	<i>Ink Code</i>	<i>Ink Usage (lbs/year)</i>	<i>Naphthalene (CAS 91-20-3)</i>	<i>PAHs (CAS 1150 & 1151)</i>	<i>Phosphoric Acid (CAS 7664-38-2)</i>	<i>Xylenes (CAS 1330-20-7)</i>	<i>Hydrochloric Acid (CAS 7647-01-0)</i>
<i>Flint</i>	<i>FVER222494 DLT Cyan</i>	504,890	0.0060			0.0030	
<i>Flint</i>	<i>FVER224346 Arroweb MT Cyan</i>	95,280	0.0060			0.0030	
<i>Flint</i>	<i>FVER222494 Arroweb RLT Black</i>	9,447	0.0020	0.0030			
<i>Flint</i>	<i>FVER202494 1LT Black</i>	395,530	0.0020	0.0020			
<i>Flint</i>	<i>FVER203346 Low Tack PUB</i>	96,641	0.0020				0.0010
<i>Flint</i>	<i>FVER242495 Arroweb Low Tack Magenta</i>	128,503	0.0010				
<i>Flint</i>	<i>FVER244346 LP Coated Magenta</i>	115,302	0.0060				
<i>Flint</i>	<i>FVER242494 DLT Magenta</i>	477,446	0.0010				
<i>Flint</i>	<i>FVER262495 Arroweb Low Tack Yellow</i>	261,579	0.0020				
<i>Flint</i>	<i>FVER273346 LP Coated Yellow</i>	207,038	0.0070				
<i>Flint</i>	<i>FVER262494 DLT Yellow</i>	969,075	0.0020				

Please see the attached Excel worksheets for detailed calculations of maximum individual cancer risk (MICR), individual substance acute hazard index (HIA) and individual substance chronic hazard index (HIC). The following table summarizes the calculated results:

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MICR

<i>Compound</i>	<i>Residential</i>	<i>Commercial</i>
<i>Naphthalene</i>	<i>3.64E-08</i>	<i>1.82E-07</i>
<i>PAHs</i>	<i>2.94E-06</i>	<i>7.23E-06</i>
<i>Phosphoric acid</i>		
<i>Xylenes (isomers and mixtures)</i>		
<i>Hydrogen chloride (hydrochloric acid)</i>		
Total	2.97E-06	7.41E-06
	PASS	PASS

Hazard Index

Target Organs	Acute	Chronic	Acute Pass/Fail	Chronic Pass/Fail
<i>Alimentary system (liver) - AL</i>			<i>Pass</i>	<i>Pass</i>
<i>Bones and teeth - BN</i>			<i>Pass</i>	<i>Pass</i>
<i>Cardiovascular system - CV</i>			<i>Pass</i>	<i>Pass</i>
<i>Developmental - DEV</i>			<i>Pass</i>	<i>Pass</i>
<i>Endocrine system - END</i>			<i>Pass</i>	<i>Pass</i>
<i>Eye</i>	<i>2.88E-05</i>		<i>Pass</i>	<i>Pass</i>
<i>Hematopoietic system - HEM</i>			<i>Pass</i>	<i>Pass</i>
<i>Immune system - IMM</i>			<i>Pass</i>	<i>Pass</i>
<i>Kidney - KID</i>			<i>Pass</i>	<i>Pass</i>
<i>Nervous system - NS</i>			<i>Pass</i>	<i>Pass</i>
<i>Reproductive system - REP</i>			<i>Pass</i>	<i>Pass</i>
<i>Respiratory system - RES</i>	<i>2.88E-05</i>	<i>3.71E-03</i>	<i>Pass</i>	<i>Pass</i>
<i>Skin</i>			<i>Pass</i>	<i>Pass</i>



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Rule Evaluation

Rule 212(c)(1): This section requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school.

Since there is no school within 1,000 feet from this project, a public notice will not be required.

Rule 212(c)(2): This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g).

	Controlled Emissions (lb/dy)					
	<u>ROG</u>	<u>NO_x</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>CO</u>	<u>Pb</u>
Increase from Facility	0	0	0	0	0	0
MAX Limit	30	40	30	60	220	3
Required Public Notice	No	No	No	No	No	No

The above table summarizes the emission limits and increases. Since emission increases are less than the limits, a public notice will not be required.

Rule 212(c)(3): Since this project will result in negligible emission increases of TACs, resulting in MICRs less than 1E-6, a public notice will not be required.

Rule 212(g): This section requires a public notice for all new or modified sources that have emission increases exceeding any of the daily maximums as specified by Rule 212(g).

The following table summarizes the limit and Potential-to-Emit (PTE) emissions from the project:

	Controlled Emissions (lb/dy)					
	<u>ROG</u>	<u>NO_x</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>CO</u>	<u>Pb</u>
Increase from Project	0	0	0	0	0	0
MAX Limit	30	40	30	60	220	3
Required Public Notice	No	No	No	No	No	No

Thus, this section will not trigger a public notice requirement.



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- Rule 401: Visible emissions are not expected with the proper operation and maintenance of the equipment.
- Rule 402: Nuisance is not expected with the proper operation and maintenance of the equipment.
- Rule 1130: Vertis is not proposing to use any new inks and is continuing to use only Rule 1130 compliant inks.
- Rule 1171: Vertis is not proposing to use any new solvents and is continuing to use only Rule 1171 compliant solvents.
- Rule 1303(a): ROG emission increases from each piece of equipment are not expected in this project. Vertis is continuing to vent emissions from heatset printing lines to oxidizers that are considered BACT.
- Rule 1303(b)(1): Further air quality modeling analysis will not be needed since the proposed change of permit conditions will not result in an emission increase.
- Rule 1303(b)(2): The proposed change of permit conditions will not result in an increase in criteria air pollutant emissions. Therefore, external emission offsets will not be needed.
- Rule 1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.
- Rules 1303(b)(5)(A) & 1303(b)(5)(D): The proposed project does not qualify as a major modification at a major polluting facility. Further, the proposed project is exempt from CEQA according to the



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responses Vertis provided on Form 400-CEQA for this project. Their responses in "Review of Impacts Which May Trigger CEQA" on Form 400-CEQA were all marked "No".

Rule 1303(b)(5)(B): The proposed change in permit conditions does not result in an increase in emissions and does not qualify as a major modification at an existing major polluting facility.

Rule 1303(b)(5)(C): A modeling analysis for plume visibility is not required since the proposed change of permit conditions does not result in an emission increase of PM10 or NOx emissions.

Rule 1401: Rule 1401 contains the following requirements:

1)(d)(1) *MICR and Cancer Burden* - The cumulative increase in MICR which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated or modified permit unit will not result in any of the following:

(A) an increased MICR greater than one in one million (1.0×10^{-6}) at any receptor location, if the permit unit is constructed without T-BACT;

B) an increased MICR greater than ten in one million (1.0×10^{-5}) at any receptor location, if the permit unit is constructed with T-BACT;

C) a cancer burden greater than 0.5.

2)(d)(2) *Chronic Hazard Index* - The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated or modified permit unit will not exceed 1.0 at any receptor location.

3)(d)(3) *Acute Hazard Index* - The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated or modified permit unit will not exceed 1.0 at any receptor location.

The calculated MICRs are less than $1E-6$ and the calculated HIAs and HICs are less than 1.0. Therefore, this project is in compliance with Rule 1401.



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The equipment will be conditioned such that no toxic air contaminants will be used that are listed in 1401 amended 6-5-2009, except for hydrochloric acid, naphthalene, phosphoric acid, PAHs and xylenes.

Regulation XXX Evaluation

Rule 3000(b)(6) defines a "de minimus significant permit revision" as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or HAPs from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM ₁₀	30
SOx	60
CO	220

To determine if a project is considered as a "de minimus significant permit revision" for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the renewal Title V permit shall be accumulated and compared to the above threshold levels. This proposed project is the 2nd permit revision to the Title V renewal permit issued to this facility on 9-22-09. The following table summarizes the cumulative emission increases resulting from all permit revisions since the initial Title V permit was issued:

	HAP	VOC	NOx	PM10	SOx	CO
Current Revision	0	0	0	0	0	0
1 st Revision, upgrading to low NOx burners	0	0	0	0	0	0
Cumulative Total	0	0	0	0	0	0
Maximum Daily	30	30	40	30	60	220

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a "de minimus significant permit revision" for non-RECLAIM pollutants or HAPs.



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Recommendation

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "de minimus significant permit revision", it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility.